

## Abstract

A fuel reformer which is relatively simple in structure and can be manufactured at a low cost is provided. A fuel reformer 5 includes: a high-temperature unit 2 having a combustion chamber 5A in which fuel is burned, and a reforming section 7 disposed on the outer peripheral surface side of the combustion chamber 5A and filled with a reforming catalyst in an annular shape; a medium-low-temperature unit 3 having a shift converter 10 section (21, 26) located on the side where the medium-low-temperature unit 3 is connected to the high-temperature unit 2 and filled with a shift converter catalyst in a cylindrical shape, and a selective oxidation section 36 located on the side opposite the side where the medium-low-temperature unit 3 is 15 connected to the high-temperature unit 2 and filled with a selective oxidation catalyst in a cylindrical shape; a connection flow pipe 19 for supplying reformate having passed through the reforming section of the high-temperature unit 2 to the shift converter section side in the medium-low- 20 temperature unit 3; and a vessel 13 for integrally housing the high-temperature unit 2 and the medium-low-temperature unit 3 connected by the connection flow pipe 19.